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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/621,837	07/17/2003	Yun Shon Low	VP082	1979

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EXAMINER
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PIZIALI, JEFFREY J

ART UNIT	PAPER NUMBER
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2673

DATE MAILED: 12/13/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

**Office Action Summary**

Application No.

10/621,837

Applicant(s)

LOW ET AL.

Examiner

Jeff Piziali

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

- 1) ☒ Responsive to communication(s) filed on 17 July 2003.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

- 4) ☒ Claim(s) 1-24 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-24 is/are rejected.
- 7) ☒ Claim(s) 2-5 and 11 is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

**Application Papers**

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 17 July 2003 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

**Priority under 35 U.S.C. § 119**

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some \* c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
  2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

**Attachment(s)**

- |  |   |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892)  | 4) <input type="checkbox"/> Interview Summary (PTO-413)<br>Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)   | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152)             |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)<br>Paper No(s)/Mail Date <u>7/17/03</u> . | 6) <input type="checkbox"/> Other: _____  |

## **DETAILED ACTION**

### ***Information Disclosure Statement***

1. The information disclosure statement filed 17 July 2003 fails to comply with 37 CFR 1.98(a)(2), which requires a legible copy of each cited foreign patent document; each non-patent literature publication or that portion which caused it to be listed; and all other information or that portion which caused it to be listed. It has been placed in the application file, but the information referred to therein has not been considered. In particular, a copy of JP 2000-250455 appears to be missing from the USPTO's file.

### ***Claim Objections***

2. Claims 2-5 are objected to because of the following informalities: Each claim separately includes the apparent typo, "the method operation of determining." Appropriate correction is required.

3. Claims 3 and 11 are objected to because of the following informalities: Both claims include the term, "the group." There is however no apparent antecedent basis for "the group." The examiner respectfully suggests using the term, "a group" instead. Appropriate correction is required.

### ***Claim Rejections - 35 USC § 112***

4. The following is a quotation of the second paragraph of 35 U.S.C. 112:

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The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

5. Claims 1, 7, 9, 14, and 20 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

6. Claims 1 and 9 both recite the limitation "extending battery life for an electronic device" in the opening preamble. There is insufficient antecedent basis for this limitation in either claim. In particular, it would be unclear to one having ordinary skill in comparison to what the battery life is being extended.

7. Claims 7 and 14 both recite the limitation "reducing data line toggling" in line 2. There is insufficient antecedent basis for this limitation in either claim. In particular, it would be unclear to one having ordinary skill in comparison to what the data line toggling is being reduced.

8. Claim 20 recites the limitation "minimize power consumption" in the last line. There is insufficient antecedent basis for this limitation in the claim. In particular, it would be unclear to one having ordinary skill in comparison to what the power is being minimized. Additionally, it should probably be noted, contrary to the instant claim's suggestion, that power consumption would actually seem to be "minimized" when the device is turned off.

***Claim Rejections - 35 USC § 102***

9. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

10. Claims 1-24 are rejected under 35 U.S.C. 102(e) as being anticipated by Aldrich et al.

(US 2003/0201990 A1).

Regarding claim 1, Aldrich discloses a method for extending battery life for an electronic device (see Paragraph 21), comprising: determining an activity mode [Fig. 2; 130] associated with a display panel [Fig. 2; 40] (see Paragraph 19); assigning a color display level [Fig. 2; 140] based upon the activity mode (see Paragraph 24); reading image data from a memory [Fig. 1; 30, 70] (see Paragraph 13); and presenting the image data at the color display level (see Paragraph 14).

Regarding claim 2, Aldrich discloses monitoring a time duration-of an inactivity period; defining a limit for the time duration; and initiating a routine to modify the color display level when the time duration reaches the limit (see Paragraph 28).

Regarding claim 3, Aldrich discloses monitoring an activity indicator selected from the group consisting of keystrokes, stylus input, remaining battery power, and inactivity duration (see Paragraphs 21 and 28).

Regarding claim 4, Aldrich discloses writing into a translation table [Fig. 2; 140] to modify a number of color availability options (see Paragraph 27).

Regarding claim 5, Aldrich discloses truncating a portion of a value associated with the color display level (see Paragraph 27).

Regarding claim 6, Aldrich discloses the portion of the value is a least significant bit of a color value (see Paragraph 27).

Regarding claim 7, Aldrich discloses reducing data line toggling (see Paragraph 32).

Regarding claim 8, Aldrich discloses associating the image data with the color display level through a look-up table (see Paragraph 17).

Regarding claim 9, this claim is rejected by the reasoning applied in rejecting claim 1; furthermore, Aldrich discloses a computer readable medium having program instructions (see Paragraph 12) for extending battery life for an electronic device (see Paragraph 21).

Regarding claim 10, this claim is rejected by the reasoning applied in rejecting claim 2.

Regarding claim 11, this claim is rejected by the reasoning applied in rejecting claim 3.

Regarding claim 12, this claim is rejected by the reasoning applied in rejecting claim 4.

Regarding claim 13, this claim is rejected by the reasoning applied in rejecting claim 5.

Regarding claim 14, this claim is rejected by the reasoning applied in rejecting claim 7.

Regarding claim 15, Aldrich discloses a graphics controller [Figs. 1 and 2; 80], comprising: an interface [Fig. 1; 100] for receiving and transmitting image data (see Paragraph 12); and a memory region [Fig. 1; 30, 70] in communication with the interface (see Paragraph 13), the memory region having a look-up table stored therein, the look-up table configured to modify color tables which control an amount of data sent to a display screen (see Paragraph 17), wherein the look-up table is programmable to correspond to a power level state [Fig. 2; 110] of a power supply for the graphics controller (see Paragraph 25).

Regarding claim 16, Aldrich discloses the look-up table is capable of limiting the toggling of data lines by truncating a portion of a color value (see Paragraph 27).

Regarding claim 17, Aldrich discloses the portion of the color value is one of a least significant bit of the color value and a most significant bit of the color value (see Paragraph 27).

Regarding claim 18, Aldrich discloses the interface is capable of reading from and writing to the look-up table (see Paragraphs 13, 17, and 18).

Regarding claim 19, Aldrich discloses a display controller configured to communicate color data from the look-up table to a display device in communication with the display controller (see Paragraph 17).

Regarding claim 20, Aldrich discloses a device, comprising: a central processing unit [Fig. 1; 20]; a display screen [Fig. 1; 40]; and a graphics controller [Figs. 1 and 2; 80] in communication with the CPU and the display screen (see Paragraph 12), the graphics controller including, an interface [Fig. 1; 100] providing communication with the CPU; and a memory region [Fig. 1; 30, 70] in communication with the interface (see Paragraph 13), the memory region having a look-up table stored therein, the look-up table configured to limit an amount of data sent to a display screen from a color table associated with the look-up table (see Paragraph 17), wherein the look-up table is configured to control toggling of data lines to minimize power consumption (see Paragraph 25 and 32).

Regarding claim 21, Aldrich discloses a battery power supply (see Paragraph 21).

Regarding claim 22, Aldrich discloses data lines defined between the display screen and a display interface of the graphics controller, the data lines configured to provide color data from



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the graphics controller to the display screen, wherein a number of data lines utilized to provide the color data is limited as a power supply level decreases (see Paragraph 32).

Regarding claim 23, Aldrich discloses a portable electronic device (see Paragraph 1).

Regarding claim 24, Aldrich discloses a device selected from the group consisting of a cellular phone, a web tablet, a personal digital assistant, and a laptop computer (see Paragraph 9).

### ***Conclusion***

11. The prior art made of record and not relied upon is considered pertinent to applicants' disclosure. Lyons (US 2004/0210786 A1), Osborn et al. (US 2002/0063716 A1), Gettemy et al. (US 6,603,469 B1), Cairns et al. (US 6,445,323 B1), Watanabe et al. (US 6,335,898 B1), Shirriff (US 6,094,185 A), Atkinson (US 5,991,883 A), Nishioka et al. (US 5,390,293 A), and Hoshina (US 5,230,056 A) are cited to further evidence the state of the art pertaining to methods for battery life extension.

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Any inquiry concerning this communication or earlier communications from the examiner should be directed to Jeff Piziali whose telephone number is (571) 272-7678. The examiner can normally be reached on Monday - Friday (6:30AM - 3PM).

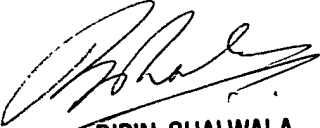
If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Bipin Shalwala can be reached on (571) 272-7681. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).



J.P.

7 December 2005



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